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09/725,009	11/28/2000	Shu-Chun Jeane Chen	SOM9-2000-0008/1963-7390	8548

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WILLIAM E LEWIS
RYAN MASON & LEWIS LLP
90 FOREST AVENUE
LOCUST VALLEY, NY 11560

EXAMINER
CORBETT, MITCHELL

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.		Applicant(s)
Office Action Summary	09/725,009		CHEN ET AL.
	Examiner		**Art Unit**
	Mitchell J Corbett		2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-31_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-31_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _2_.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

Specification

1.   The abstract of the disclosure is objected to because the abstract exceeds 150 words in length. MPEP § 608.01(b). states: "A brief abstract of the technical disclosure in the specification must commence on a separate sheet, preferably following the claims, under the heading 'Abstract ' or 'Abstract of the Disclosure.' The abstract in an application filed under 35 U.S.C. 111 may not exceed 150 words in length. The purpose of the abstract is to enable the United States Patent and Trademark Office and the public generally to determine quickly from a cursory inspection the nature and gist of the technical disclosure. The abstract will not be used for interpreting the scope of the claims." Correction is required.

Claim Objections

2.   Claims 5 and 6 are objected to because of the following informalities: in line one of both claims 5 and 6, references are made to a first tag and second tag, respectively, although claim 1, on which both claims depend, makes no mention of either a first or a second tag. The terms "the first tag" and "the second tag" in claims 5 and 6, respectively, should be changed to – a first tag – and – a second tag – where appropriate, or else both claims 5 and 6 should be made dependent on claim 4, rather than on claim 1.

The examiner considers both claim 5 and claim 6 to contain the phrases – a first

tag – and – a second tag --, respectively.

3.   Claim 16 is objected to because of the following informalities: in claim 16, line 2,

reference is made to "the transmitter", however, there is no previous reference to a

transmitter made in either claim 16, or its parent claim 13. The phrase "the transmitter"

should be changed to – a transmitter --.

4.   Claims 21 and 24 are objected to because of the following informalities: in claims

21 and 24, line 2, respectively, reference is made to "the override table tags", however,

there is no previous reference to table tags made in either claims 21 or 24, nor in their

parent claims 19 and 22, respectively. The phrase "the override table tags" should be

changed to – override table tags – where appropriate.

5.   Claim 25 is objected to because of the following informalities: in claim 25, line 4

the phrase "and the location and where they are to be inserted" should be changed to –

and the location of where they are to be inserted --.

Claim Rejections - 35 USC § 103

6.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7.   Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, and further in view of Esch et al. (Esch) (US 5,099,319).

Considering claim 1, Chen discloses a system for incorporating local content into a communication stream (column 2, lines 11-18) comprising: means for transmitting a communication stream (satellite uplink 200, fig. 2, and column 5, lines 24-28) including program content (column 5, lines 30-33) to a receiver (integrated receiver 244, column 5, 33-34); means for inserting tags descriptive of local action (column 2, lines 18-24, and see T__in and T__out, column 6, line 66 – column 7, line 2) in the program content at the receiver (see main stream, column 6, lines 1-13); means for processing the tags (Main Stream Parser or MSP 415 and Insertion Stream Parser or ISP 420, fig. 4) to insert local content in place of the program content (see MSP and ISP function, column 8, lines 30-42 and column 9, lines 1-18) for re-transmission to the local area served by the receiver (see DAIM 250 function, which includes MSP 415 and ISP 420, fig. 2, column 5 lines 36-48). Although Chen discloses a means for capturing the program content at the receiver (column 5, lines 28-35), Chen fails to specifically disclose storing of the tags in tables, as recited in the claim.

In an analogous art, Esch discloses a system in which tags (schedule data tags as part of content data, column 3, lines 50-53, column 4, lines 12-18) are stored in

tables (i.e., in a memory device, column 4, lines 57-60), for the purpose of allowing the

tag to be stored and recalled until scheduled (column 4, line 60 – column 5, lines 2).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the system of Chen to include storing of the tags in tables, as taught

by Esch, for the purpose of allowing the tag data to be stored intermediately until

scheduled to be inserted.

8.   Claims 2, 3, 7, 13 and 14 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chen, and further in view of Esch, as applied to claim 1 above, and

further in view of Allen et al. (Allen) (US 5,892,535).

Considering claim 2, although the combined systems of Chen and Esch disclose

inserting tags into the program content (Chen, column 2, lines 18-24), they fail to

specifically disclose a means for authoring said tags, as recited in the claim.

In an analogous art, Allen discloses a system in which tags (cue tones) are

generated by an authoring means (Media Server 202, Fig. 2, and column 12, lines 44-

54), for the purpose of allowing the distribution network the ability to control when a

program break is to be issued in transmitted content (column 12, lines 50-54, and

column 17, lines 44-45).

Consequently, it would have been obvious to one of ordinary skill in the art at the

time of invention to modify the combined system of Chen and Esch to include a means

for authoring said tags, as taught by Allen, for the purpose of allowing the distribution

network the ability to control when a program break for an ad insertion is to be issued.

As for claim 3, although the combined systems of Chen and Esch disclose

inserting tags into the program content for local action (Chen, column 2, lines 18-24),

they fail to specifically disclose a means for scheduling said tags, as recited in the claim.

In an analogous art, Allen discloses a commercial insertion system including a

means for scheduling tags (cue tones, column 12, lines 44-54), for the purpose of

providing the cable distribution system with the appropriate times to insert local

advertisements.

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined system of Chen and Esch to include a means for

scheduling said tags, as taught by Allen, for the purpose of providing the cable

distribution system with the appropriate times to insert local advertisements.

As for claim 7, although the combined systems of Chen and Esch disclose a tag

containing local action (Chen, column 2, lines 18-24, and see T__in and T__out, column

6, line 66 – column 7, line 2), they fail to disclose the system wherein each tag

comprises a header and tag type, as recited in the claim.

In an analogous art, Allen discloses a system wherein each tag contains a

header and a tag type (see cue tone header 2902 and cue tone type field 2904, fig. 29,

and column 30, line 63 – column 31, line 9).   The header and tag type allows the

receiver to readily and quickly identify incoming data as a tag, and to further discriminate the category of tags being received.

Consequently, it would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen and Esch to include each tag comprising a header and tag type, as taught by Allen, for the purpose of readily and quickly identifying data as tag data when it is received, and to further discriminate the category of the tag being received, so that it may be properly acted upon.

As for claim 13, Chen discloses a system and method of processing tags (see T__in and T__out, column 6, lines 1-15) in a communication stream containing program content for delivery to a receiver (integrated receiver 244, and column 5, lines 24-32), comprising: capturing the program content at the receiver (column 5, 28-35) including the tags (see T__in carried in main stream, column 6, lines 8-10); processing the tags to insert local content in place of the program content (see DAIM function, column 5, lines 36-40) for re-transmission to an area served by the receiver (column 5, lines 44-48). Chen fails to disclose storing said tags in tables and said insertion at a scheduled time, as recited in the claims.

In an analogous art, Esch discloses a system in which tags (schedule data tags as part of content data, column 3, lines 50-53, column 4, lines 12-18) are stored in tables (i.e., in a memory device, column 4, lines 57-60), for the purpose of allowing the tag to be stored and recalled until scheduled (column 4, line 60 – column 5, lines 2).

Esch fails to disclose a commercial insertion method including a means for scheduling tags for insertion of local content in place of program content, as recited in the claims.

In an analogous art, Allen discloses a commercial insertion method including a means for scheduling tags for insertion of local content in place of program content (cue tones, column 12, lines 44-54), for the purpose of providing the cable distribution system with the appropriate times to insert local advertisements. Allen fails to disclose a program medium and instructions therein executable in a computer system, as recited in the claims.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chen to include storing of the tags in tables, as taught by Esch, for the purpose of allowing the tag data to be stored intermediately until scheduled to be inserted.

It would have further been obvious to one of ordinary skill in the art at the time of invention to modify the combined method of Chen and Esch to include a means for scheduling said tags, as taught by Allen, for the purpose of providing the cable distribution system with the appropriate times to insert local advertisements.

As for claim 14, the combined methods of Chen, Esch, and Allen disclose scheduling the tag (Allen, column 12, lines 44-54) in the program content for incorporation into the communication stream (Chen, see main stream, column 6, lines 1-13) at scheduled insertion points (Chen, column 6, lines 1-4 and 6-8).

9.   Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,

and further in view of Esch, as applied to claim 1 above, and further in view of Beaudry

et al. (Beaudry) (US 5,524,001).

As for claim 4, although the combined systems of Chen and Esch disclose a first

and second tag (Chen, see T__in and T__out, column 6, line 66 – column 7, line 2) in

the program content (see main stream, column 6, lines 1-13), and a means of storing

said tags in a receiver (Esch, column 4, lines 55-60), they fail to disclose a first and

second table means, as recited in the claim.

In an analogous art, Beaudry discloses a first and second table means (see first

address table and second packet characteristic table, column 3, lines 1-23), for the

advantage of increasing the responsiveness of the system (column 2, lines 16-19) and

having the ability to prioritize data quickly (column 2, lines 33-35).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined system of Chen and Esch to include a first and

second table means, as taught by Beaudry, for the advantage of being able to more

quickly store and retrieve different tags, so that the system can respond more quickly to

incoming data, and process it more efficiently.

10.   Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,

and further in view of Esch, as applied to claim 1 above, and further in view of Minter et

al. (Minter 6,577,716) and further in view of Beaudry et al. (Beaudry) (US 5,524,001).

Considering claim 8, the combined systems of Chen and Esch disclose a system containing a means for processing tags, including means for detecting a scheduled time (Chen, see T__in and T__out, column 6, line 66 – column 7, line 2) in the program content (Chen, column 6, lines 1-13) for initiating and transmitting local action described in a tag (Chen, column 2, lines 18-24); however, Chen and Esch fail to disclose said processing means comprising a supervisor for scanning a first and a second table for tags, as recited in the claim.

In an analogous art, Minter discloses a supervisor module (computer system) for scanning incoming tags (markers, column 2, lines 40-42, and column 3, lines 2-11), for the purpose of adding flexibility by allowing selective replacement of the content (column 3, lines 9-11).

Beaudry discloses a first and second table means (see first address table and second packet characteristic table, column 3, lines 1-23), for the advantage of being able to more quickly store and retrieve different tag types.

It would have been obvious to one of ordinary skill in the art at the time of invention to further modify the combined system of Chen and Esch to include said processing means comprising a supervisor for scanning incoming tags, as taught by Minter, for the purpose of determining if and when program content can be pre-empted for the local insertion of commercials.

It would further have been obvious to one of ordinary skill in the art at the time of invention to further modify the combined system of Chen, Esch, and Minter, to include a

first and second table means, as taught by Beaudry, for the advantage of being able to
more quickly store and retrieve different tag types.

11.   Claims 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,
and further in view of Esch, as applied to claim 1 above, and further in view of Kauffman
et al. (Kauffman) (US 5,260,778).

        As for claim 6, the combined system of Chen and Esch disclose a second tag
(Chen, T__out) comprising means for overriding the local content with other content
(Chen, column 7, line 2; here, T__out is used to override the local tag T__in with main
stream content), however they fail to specifically disclose a second tag means
overriding a local tag, as recited in the claim.

        In an analogous art, Kauffman discloses a second tag means (see emergency
message signal control code) which overrides a local tag (i.e., overrides a message
stored locally by displaying the emergency message immediately, column 5, lines 48-
55, column 6, lines 37-45, and column 8, lines 14-22), for the purpose of allowing an
urgent tag to be displayed in place of an existing one. Kauffman discloses control
codes indicating that messages may be stored for later use (column 5, lines 49-50), or
displaying a message immediately, therefore overriding the locally stored tag.

        It would have been obvious to one of ordinary skill in the art at the time of
invention to modify the combined system of Chen and Esch to include a second tag

means overriding a local tag, as taught by Kauffman, for the purpose of allowing an

urgent tag to be displayed in place of an existing one.

12.   Claims 5, 19, 20, 22, and 23 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Chen, and further in view of Esch, and further in view of Minter et al.

(Minter) (US 6,577,716).

As for claim 5, the combined system of Chen and Esch disclose a first tag (Chen,

see T__in and T__out, column 6, line 66 – column 7, line 2), they fail to specifically

disclose a means for identifying local content for replacing program content, as recited

in the claim.

In an analogous art, Minter discloses a tag (marker) comprising means for

identifying local content for replacing program content (column 3, lines 17-21), for the

advantage of providing increasing flexibility by allowing selective replacement of the

content (column 3, lines 9-11).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined system of Chen and Esch to include a means for

identifying local content for replacing program content, as taught by Minter, for the

advantage of providing the transmission system with the ability to reach a different

customer base by allowing advertisement content to be replaced.

As for claims 19 and 22, the system of Chen discloses a system and method

including a supervisor module (Chen, DAIM 250 function, fig. 2) in an enhanced TV

station (Chen, see HFC Headend 144 and CATV Distribution 146 in Access Network 140, fig. 2) comprising means for reading program content in a communication stream from a transmitter (Chen, Satellite Uplink 200, and column 5, lines 36-48); means for replacing program content with local content based on tags (Chen, see T__in and T__out, column 6, line 66 – column 7, line 2, column 8, line 30-46); however, Chen fails to specifically disclose identifying tags in the program content and means for inserting identifying tags in tables, as recited in the claims.

Minter discloses means for identifying tags (markers) in program content (see processing of markers, column 2, lines 40-41 and column 3, lines 2-8), for the purpose of adding flexibility by allowing selective replacement of the content (column 3, lines 9-11). Minter fails to specifically disclose means for inserting identifying tags in tables, as recited in the claims.

In a further analogous art, Esch discloses a system in which tags (digital tags as part of content data, column 3, lines 50-53, column 4, lines 12-18) are stored in tables (i.e., in a memory device, column 4, lines 57-60), for the purpose of allowing the tag to be stored and recalled until scheduled (column 4, line 60 – column 5, lines 2).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen to include means for identifying tags, as taught by Minter, for the advantage of providing the transmission system with the ability to reach a different customer base by allowing advertisement content to be replaced.

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined system of Chen and Minter to include storing of the

tags in tables, as taught by Esch, for the purpose of allowing the tag data to be stored

intermediately until scheduled to be inserted.

As for claims 20 and 23, the combined systems and methods of Chen, Minter,

and Esch disclose means for storing tags (schedule data as part of content data) in a

local (i.e., at the head end) table (Esch, column 4, lines 55-60) according to a tag

identifier (column 6, lines 13-14).

13.   Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,

and further in view of Esch, as applied to claim 1 above, and further in view of Allen,

and further in view of Kauffman.

As for claim 9, although the combined systems of Chen and Esch disclose local

tags (Chen, see T__in, column 6, line 66 – 67), and overriding local content (Chen, see

T__out, column 7, line 2), and further disclose a tag defining local action (Chen, column

2, lines 18-24, and see T__in and T__out, column 6, line 66 – column 7, line 2), they fail

to specifically disclose a means for authoring said local and override tags, and a tag

including a header and local action, as recited in the claim.

In an analogous art, Allen discloses a system in which local tags (i.e., tags for

inserting local content, see cue tones, column 18, lines 44-51) are generated by an

authoring means (Media Server 202, Fig. 2, and column 12, lines 44-54). Allen further

discloses each tag containing a header and a tag type (see cue tone header 2902 and

cue tone type field 2904, fig. 29, and column 30, line 63 – column 31, line 9), for the

purpose of possessing the ability to control when and where breaks are to inserted in a

programming stream, and allowing the receiver to readily and quickly identify incoming

data as a tag, and to further discriminate the category of tag being issued.   Allen fails to

specifically disclose authoring said override tag, as recited in the claim.

In an analogous art, Kauffman discloses authoring an override tag (see

emergency message signal control code, column 5, lines 48-55, and column 3, line 65 –

column 4, line 4). Further, adding an override feature allows the central facility to

modify viewing content remotely through the use of tags.

Consequently, it would have been obvious to one of ordinary skill in the art at the

time of invention to modify the combined system of Chen and Esch to include a means

for authoring said tags and including each tag comprising a header and tag type, as

taught by Allen. Authoring tags allows for the ability to control the location and the time

at which breaks are to be inserted in programming, while utilizing a header and tag type

allows for efficient identification and processing of incoming data.

It would have further been obvious to one of ordinary skill in the art at the time of

invention to modify the combined system of Chen, Esch, and Allen to include a means

for authoring said override tags, as taught by Kauffman, for the purpose of allowing the

central facility to instantaneously modify what the viewer is able to watch, in the case of

an emergency, or other critical situations.

14.   Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,

and further in view of Kaiser et al. (Kaiser) (US 6,615,408).

As for claim 10, Chen discloses an enhanced TV system (fig. 2) comprising: a

source for transmitting (satellite uplink 200, fig. 2, and column 5, lines 24-28)

compressed, packetized audio/video program content (column 2, lines 11-14) with tags

in a communication stream (see start signal, column 2, lines 18-21); an enhanced TV

station for receiving said communication stream (access network 140, column 5, lines

36-48); means for expanding the received communication stream (demodulator 246 and

decryption function 248, column 5, lines 24-35); means for processing the tags in the

communication stream (DAIM 250, fig. 2) to insert local content spliced into said content

(column 5, lines 36-40); and local receivers (TVs 170, and 172, fig. 2) for receiving and

viewing said content (column 5, lines 11-18 and 44-48).   Although Chen discloses an

interactive data server (104, fig. 1), Chen fails to specifically disclose interacting with

program content, as recited in the claim.

In an analogous art, Kaiser discloses a means for interacting with locally

displayed content (column 2, 23-39), for the advantage of allowing interactive product

selection, while allowing advertisers with flexibility to select appropriate products and

segments for selection (column 2, lines 23-29).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the system of Chen to include disclose interacting with said content,

as taught by Kaiser, for the advantage of allowing customers to interact with products,

while allowing advertisers to flexibly adapt interactive content provided to customers.

15.   Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chen, and further in view of Kaiser, as applied to claim 10 above, and further in

view of Allen, and further in view of Klosterman et al. (Klosterman) (US 2001/0013124

A1), and further in view of Rosser (US 6,446,261).

Considering claim 11, Chen and Kaiser disclose an enhanced TV system.

Although Chen discloses splicing tags into the program content (see T__in insertion into

main stream, column 6, lines 1-4) and means coupling the computer (Chen, ATM

Server 122, fig. 2) to web servers (Chen, Internet Gateway 106, fig. 2, and column 4,

lines 13-22), Chen fails to disclose a computer means including a memory; program

instructions stored in the memory for authoring tags; supervising tag processing;

scheduling tag insertion into the program content; and web servers for e-commerce,

database information, and tracking interaction with local receivers, as recited in the

claim.

Allen discloses a computer means including a memory (Media Server 202, fig. 2,

see processor function and program storage, column 12, line 45-47); program

instructions stored in the memory for authoring tags (see cue tone generation stored in

program storage, column 12, lines 44-50); supervising tag processing (column 12, lines

45-52); and scheduling tag insertion into the program content (column 12, lines 50-52).

Authoring tags, supervising tag processing, and scheduling tags for insertion allows the

cable system to provided targeted advertising directed to a certain demographic

segment (column 9, lines 6-8). The use of a computer means allows for the efficient

and timely processing of said authoring. Allen fails to specifically disclose web servers

for e-commerce, database information and tracking interaction with the local receivers,

as recited in the claim.

In an analogous art, Klosterman discloses a television advertisement insertion

system which is linked to a web server (advertising schedule database) for database

information (par. 48), for the purpose of allowing the database to be maintained at a

location addressable by the television (par. 48). Klosterman fails to disclose web

servers for e-commerce and tracking interaction with local receivers, as recited in the

claim.

In an analogous art, Rosser discloses a system of inserting media into

broadcasts wherein a computer (central controller 146, fig. 4) is connected to web

servers for e-commerce (see web addresses as advertising, column 4, line 66 – column

5, line 6) and tracking interaction with local receivers (set-top device 44, fig. 4, and see

viewer usage profiles, column 11, line 62 – column 12, lines 8, and lines 55-63), for the

purpose of allowing customer access to further information or advertising relating to an

advertised product (column 5, lines 3-6), while allowing advertisers to further target

viewers (column 4, lines 20-22).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined system of Chen and Kaiser to include a computer

means including a memory; program instructions stored in the memory for authoring

tags; supervising tag processing; scheduling tag insertion into the program content, as

taught by Allen, for the purpose of: providing a quick and efficient means for generating

tags; allowing the broadcasting facility to more effectively target a particular demographic through the insertion of tagged advertisements.

It would have further been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen, Kaiser, and Allen to include web servers for database information, as taught by Klosterman, for the purpose of allowing the database to be maintained at a location addressable by the television.

It would have further been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen, Kaiser, Allen, and Klosterman to include web servers for e-commerce and tracking interaction with the local receivers, as taught by Rosser, for the purpose of allowing customer access to learn more about an advertised product, while allowing advertisers to further target viewers, and thus improve its ad effectiveness.

As for claim 12, the combined systems of Chen, Kaiser, Allen, Klosterman, and Rosser disclose the local receiver (Chen, TVs 170, and 172, fig. 2) and an enhanced TV station enhanced TV station (Chen, access network 140, column 5, lines 36-48), however they fail to disclose the local receiver means generating and transmitting messages to the TV station; and means for transmitting the messages to web servers which respond to the messages, as recited in the claim.

Allen further discloses a local receiver means (Subscriber Set Top Box 1220, Fig. 12C) generating and transmitting messages (subscriber request) to a TV station (Head End 1226, fig. 12C and column 47, lines 20-27). A local receiver means generating and

transmitting TV messages allows the viewer to make interactive movie selections to the head-end. Allen fails to disclose means for transmitting the messages to web servers which respond to the messages, as recited in the claim.

Kaiser further discloses a means for transmitting messages (trigger zone 1120, which contain web addresses column 6, lines 35-42) to web servers (action resource provider 1500, fig. 1) which respond to the messages (column 5, lines 55-67, and column 6, lines 34-50), for the purpose of allowing interaction between a viewer and an advertiser (purveyor) that is cost effective (column 2, lines 23-30).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen, Kaiser, Allen, Klosterman, and Rosser to include the local receiver means generating and transmitting messages to the TV station, as further taught by Allen, for the purpose of allowing the subscriber to conveniently select movies for viewing from the head-end.

It would have further been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen, Kaiser, Allen, Klosterman, and Rosser to include means for transmitting the messages to web servers which respond to the messages, as further taught by Kaiser, for the purpose of allowing interaction between a viewer and an advertiser in a cost effective and ubiquitous manner, such as using the Internet.

16.   Claims 15 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chen, and further in view of Esch, and further in view of Allen, as applied to claim

13, and further in view of Sposato.

        Considering claim 15, the combined systems and methods of Chen, Esch, and

Allen disclose actions defined in a tag (Chen, column 2, lines 18-24), however fail to

disclose coupling a set-top box to the receiver for interaction in accordance with an

action defined by a tag, as recited in the claim.

        In an analogous art, Sposato discloses coupling a STB (set top terminal 48) to

the receiver (headend system 12) for interaction in accordance with an action defined

by a tag (see additional information marker, column 3, lines 16-42). Said coupling

allows the user to communicate a selection to a receiver using a set-top box.

        It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined method of Chen, Esch, and Allen to include coupling a

set-top box to the receiver for interaction in accordance with said action defined by a

tag, as taught by Sposato, for the advantage of allowing the user to not only view

programming from the headend, but to modify the content by selecting which programs

to watch.

        As for claim 16, the combined methods of Chen, Esch, and Allen fail to

specifically disclose sending messages to the transmitter from set-top boxes, as recited

in the claim.

In an analogous art, Sposato discloses sending messages (see selection of information marker, column 3, lines 19-42, and step 816, fig. 8, and column 16, lines 14-22) from set-top boxes (set-top terminal 48) to a transmitter (CMS 22, part of headend system 12). Allowing for two-way communication allows the user to communicate selection to the headend using a set-top box.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined method of Chen, Esch, and Allen to include coupling a set-top box to the receiver for interaction in accordance with said action defined by a tag, as taught by Sposato, for the advantage of allowing the user to not only view programming from the headend, but to modify the content by selecting which programs to watch.

17.   Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, and further in view of Esch, and further in view of Allen, as applied to claims 13 above, and further in view of Rosser.

Considering claim 17, the combined systems and methods of Chen, Esch, and Allen fail to specifically disclose tracking set-top interaction with the receiver, as recited in the claims.

In an analogous art, Rosser discloses inserting media into broadcasts wherein interaction with local receivers is tracked (see viewer usage profiles, column 11, line 62 – column 12, lines 8, and lines 55-63), for the benefit of allowing the central facility to

build a viewer usage profile (column 12, lines 1-2), which allows advertisers to further

target their products (column 4, lines 14-23).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined methods of Chen, Esch, and Allen to include tracking

set-top interaction with the receiver, as taught by Rosser, for the advantage of allowing

the creation of viewer profiles, which in turn allow businesses to further refine their

targeting of ads.

18.   Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,

and further in view of Esch, and further in view of Allen, as applied to claim 13, and

further in view of Kaiser.

As for claim 18, the combined systems and methods of Chen, Esch, and Allen

fail to specifically disclose transmitting messages to web servers for contents identified

by requests from set-top boxes, as recited in the claims.

In an analogous art, Kaiser discloses transmitting messages (request 1340, fig.

3) to web servers (action resource provider 1500, fig. 1, and column 5, lines 55-67) for

contents identified by requests (see ASI indication 1360, column 8, lines 1-24) from set-

top boxes (reproducing apparatus 1300, column 7, lines 30-43), for the advantage of

allowing a product to be referenced by the viewer interactively, while allowing

advertisers with flexibility to select appropriate products and segments for selection

(column 2, lines 23-29).

It would have been obvious to one of ordinary skill in the art at the time of

invention to modify the combined methods of Chen, Esch, and Allen to include

transmitting messages to web servers for contents identified by requests from set-top

boxes, as taught by Kaiser, for the advantage of allowing a product to be referenced by

the viewer interactively, while allowing advertisers with flexibility to select appropriate

products and segments for selection.

19.   Claims 21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chen, and further in view of Esch, and further in view of Minter, and further in view

of Fik (US 6,408,163).

Considering claims 21 and 24, the combined systems and methods of Chen,

Esch, and Minter disclose implementing local table tags (Esch, column 4, lines 55-60) in

the program content (Chen, see T__in indication of insertion into main stream, column

6, lines 1-4) Chen and Esch fail to disclose said implementing unless replaced by

override table tags, as recited in the claim.

In a similar problem-solving endeavor, Fik discloses implementing (utilizing) local

table tags (local tag stored in a table) unless replaced by override table tags (new local

tags, column 20, lines 33-40). Implementing said local tags unless replaced by override

tags ensures that only the most recent data is stored within the system (column 20,

lines 39-40).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the systems and methods of Chen, Esch, and Minter to include implementing local tags unless replaced by override tags, as taught by Fik, to ensure that as data is received by the system, new local tags have priority to override older tags, thus keeping all stored tags up-to-date.

20.   Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, and further in view of Esch, and further in view of Harper et al. (Harper) (US 5,585,858), and further in view of Kataoka et al. (Kataoka) (US 6,546,556).

As for claim 25, Chen discloses a method for installing tags (see main stream of T__in and T__out, column 6, lines 1-13) to replace program content in a communication stream with local content (column 2, lines 11-18) comprising: a capture device (demodulator 246 and decryption function 248) directed to read the program content (column 5, lines 30-34); obtaining tags in the program content (see recovery of start signal, column 2, lines 19-22) and the location of where they are to be inserted into the content (see desired starting and ending time, column 6, line 66 – column 7, line 2). Chen fails to specifically disclose scheduling the tags so that they arrive in content by the specified insertion time; inserting the tags into the program content at the scheduled time; and encoding the program content and the tags for broadcast, as recited in the claim.

In an analogous art, Harper discloses scheduling tags (i.e., audio segments containing tags, see codes associated with questions, column 25, lines 2-15) so that they arrive in content by the specified insertion time (column 7, lines 22-27), for the purpose of allowing said tag to be available when needed (column 7, lines 27-31) and inserting tags into program content (inserting the tagged audio segments into the program content, column 8, lines 15-19) at the scheduled time (column 7, lines 35-39). Harper fails to specifically disclose encoding the program content and the tags for broadcast, as recited in the claim.

In an analogous art, Kataoka discloses encoding (see TV transmitter 20) the program content (video stream) and the tags for broadcast (see broadcast from first station to second station, column 1, line 62 – column 2, line 17, and column 4, line 1-8). Sending tags along with the encoded program content allows the receiver in this case to easily identify desired content and distribute them to the end user.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the system of Chen to include scheduling so that they arrive in content by the specified insertion time, as taught by Harper, for ensuring that auxiliary data is available when it needs to be inserted into the primary content.

It would further have been obvious to one of ordinary skill in the art at the time of invention to modify the combined system of Chen and Harper to include disclose encoding the program content and the tags for broadcast, as taught by Kataoka, for the advantage of allowing the tag data to be quickly and easily identified when delivered, so that proper action may be taken when the data is received.

21.   Claims 26, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chen, and further in view of Esch, and further in view of Allen, and further in view

of Kauffman.

As for claim 26, Chen discloses a system and method of processing tags (see

T__in and T__out, column 6, lines 1-15) in a communication stream containing program

content for delivery to a receiver (integrated receiver 244, and column 5, lines 24-32),

comprising: capturing the program content at the receiver (column 5, 28-35) including

the tags (see T__in carried in main stream, column 6, lines 8-10); processing the tags to

insert local content in place of the program content (see DAIM function, column 5, lines

36-40) for re-transmission to an area served by the receiver (column 5, lines 44-48).

Chen fails to disclose storing said tags in tables and said insertion at a scheduled time,

and a program medium executable in a computer system and instructions therein, as

recited in the claims.

In an analogous art, Esch discloses a system in which tags (digital tags as part of

content data, column 3, lines 50-53, column 4, lines 12-18) are stored in tables (i.e., in a

memory device, column 4, lines 57-60), for the purpose of allowing the tag to be stored

and recalled until scheduled (column 4, line 60 – column 5, lines 2).

Esch fails to disclose a commercial insertion method including a means for

scheduling tags for insertion of local content in place of program content and a program

medium and instructions therein executable in a computer system, as recited in the
claims.

In an analogous art, Allen discloses a commercial insertion method including a
means for scheduling tags for insertion of local content in place of program content (cue
tones, column 12, lines 44-54), for the purpose of providing the cable distribution
system with the appropriate times to insert local advertisements. Allen fails to disclose
a program medium and instructions therein executable in a computer system, as recited
in the claims.

Kauffman further discloses a program medium and instructions therein (i.e.,
software) executable in a computer system (Microprocessor 56, column 5, lines 21-222,
and column 6, line 67 – column 7, line 11). Software operated on a computer system
allows an efficient method to execute the steps necessary to perform said ad insertion.

It would have been obvious to one of ordinary skill in the art at the time of
invention to modify the system of Chen to include storing of the tags in tables, as taught
by Esch, for the purpose of allowing the tag data to be stored intermediately until
scheduled to be inserted.

It would have further been obvious to one of ordinary skill in the art at the time of
invention to modify the combined method of Chen and Esch to include a means for
scheduling said tags, as taught by Allen, for the purpose of providing the cable
distribution system with the appropriate times to insert local advertisements.

It would have further been obvious to one of ordinary skill in the art at the time of
invention to modify the combined method of Chen, Esch, and Allen to include a program

medium and instructions therein executable in a computer system, as taught by

Kauffman, for the purpose of providing an efficient method to execute the steps

necessary to perform said ad insertion.

As for claim 27, the combined methods of Chen, Esch, Allen, and Kaufman

disclose scheduling the tag (Allen, column 12, lines 44-54) in the program content for

incorporation into the communication stream (Chen, see main stream, column 6, lines

1-13) at scheduled insertion points (Chen, column 6, lines 1-4 and 6-8) and program

instruction in the medium for providing the same (Kauffman, column 5, lines 21-222,

and column 6, line 67 – column 7, line 11).

22.   Claims 28 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Chen, and further in view of Esch, and further in view of Allen, and further in view

of Kauffman, as applied to claim 26 above, and further in view of Sposato.

Considering claim 28, the combined systems and methods of Chen, Esch, Allen,

and Kauffman disclose actions defined in a tag (Chen, column 2, lines 18-24) and

program instruction in the medium for providing the same (Kauffman, column 5, lines

21-222, and column 6, line 67 – column 7, line 11), however fail to disclose coupling a

set-top box to the receiver for interaction in accordance with an action defined by a tag,

as recited in the claims.

In an analogous art, Sposato discloses coupling a STB (set top terminal 48) to the receiver (headend system 12) for interaction in accordance with an action defined by a tag (see additional information marker, column 3, lines 16-42). Said coupling allows the user to communicate a selection to a receiver using a set-top box.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined method of Chen, Esch, Allen, and Kauffman to include coupling a set-top box to the receiver for interaction in accordance with said action defined by a tag, as taught by Sposato, for the advantage of allowing the user to not only view programming from the headend, but to modify the content by selecting which programs to watch.

As for claim 29, the combined methods of Chen, Esch, Allen, and Kauffman disclose a method of processing tags and program instruction in the medium for providing the same (Kauffman, column 5, lines 21-222, and column 6, line 67 – column 7, line 11), however they fail to specifically disclose sending messages to the transmitter from set-top boxes, as recited in the claims.

In an analogous art, Sposato discloses sending messages (see selection of information marker, column 3, lines 19-42, and step 816, fig. 8, and column 16, lines 14-22) from set-top boxes (set-top terminal 48) to a transmitter (CMS 22, part of headend system 12). Allowing for two-way communication allows the user to communicate selection to the headend using a set-top box.

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined method of Chen, Esch, Allen, and Kauffman to include coupling a set-top box to the receiver for interaction in accordance with said action defined by a tag, as taught by Sposato, for the advantage of allowing the user to not only view programming from the headend, but to modify the content by selecting which programs to watch.

23. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen, and further in view of Esch, and further in view of Allen, and further in view of Kauffman, as applied to claim 26 above, and further in view of Rosser.

Considering claim 30, the combined systems and methods of Chen, Esch, Allen, and Kauffman disclose a method of processing tags and program instruction in the medium for providing the same (Kauffman, column 5, lines 21-222, and column 6, line 67 – column 7, line 11), however they fail to specifically disclose tracking set-top interaction with the receiver, as recited in the claims.

In an analogous art, Rosser discloses inserting media into broadcasts wherein interaction with local receivers is tracked (see viewer usage profiles, column 11, line 62 – column 12, lines 8, and lines 55-63), for the benefit of allowing the central facility to build a viewer usage profile (column 12, lines 1-2), which allows advertisers to further target their products (column 4, lines 14-23).

It would have been obvious to one of ordinary skill in the art at the time of invention to modify the combined methods of Chen, Esch, Allen, and Kauffman to

include tracking set-top interaction with the receiver, as taught by Rosser, for the

advantage of allowing the creation of viewer profiles, which in turn allow businesses to

further refine their targeting of ads.

24.   Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chen,

and further in view of Esch, and further in view of Allen, and further in view of Kauffman,

as applied to claim 26 above, and further in view of Kaiser.

As for claim 31, the combined systems and methods of Chen, Esch, Allen and

Kauffman disclose a method of processing tags and program instruction in the medium

for providing the same (Kauffman, column 5, lines 21-222, and column 6, line 67 –

column 7, line 11), however they fail to specifically disclose transmitting messages to

web servers for contents identified by requests from set-top boxes, as recited in the

claims.

In an analogous art, Kaiser discloses transmitting messages (request 1340, fig.

3) to web servers (action resource provider 1500, fig. 1, and column 5, lines 55-67) for

contents identified by requests (see ASI indication 1360, column 8, lines 1-24) from set-

top boxes (reproducing apparatus 1300, column 7, lines 30-43), for the advantage of

allowing a product to be referenced by the viewer interactively, while allowing

advertisers with flexibility to select appropriate products and segments for selection

(column 2, lines 23-29).

Conclusion

25.   The following are suggested formats for either a Certificate of Mailing or Certificate of Transmission under 37 CFR 1.8(a). The certification may be included with all correspondence concerning this application or proceeding to establish a date of mailing or transmission under 37 CFR 1.8(a). Proper use of this procedure will result in such communication being considered as timely if the established date is within the required period for reply. The Certificate should be signed by the individual actually depositing or transmitting the correspondence or by an individual who, upon information and belief, expects the correspondence to be mailed or transmitted in the normal course of business by another no later than the date indicated.

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I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, Fax No. (703)_____ - _____ on _____.
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Please refer to 37 CFR 1.6(d) and 1.8(a)(2) for filing limitations concerning facsimile transmissions and mailing, respectively.

26.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mitchell J Corbett whose telephone number is (703) 305-8982. The examiner can normally be reached on Monday-Friday 8:30am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris Grant can be reached on (703) 305-4755. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Mitchell Corbett
Patent Examiner
Art Unit 2614

MJC

CHRIS GRANT
PRIMARY EXAMINER